Declassified in Part - Sanitized Copy Approved for Release 2013/06/26 : CIA-RDP80-00810A002800200003-9

CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

This Document contains information affecting the National Defense of the United States, within the meaning of Title 18, Sections 793 and 794, of the U.S. Code, as amended. Its transmission or revelation of its contents to or receipt by an unauthorized person is prohibited by law. The reproduction of this form is prohibited.

SECRET/CONTROL - U.S. OFFICIALS ONLY
SECURITY INFORMATION

COUNTRY	East Germany	REPORT	50X1-HUM
SUBJECT	Specifications of Decimeter Equipment Manufactured by Sachsenwerk Radeberg	DATE DISTR.	10 November 1953
		NO. OF PAGES	5
DATE OF INFO.		REQUIREMENT NO.	RD
PLACE ACQUIRED		REFERENCES	50X1-HUM

THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE.
THE APPRAISAL OF CONTENT IS TENTATIVE.
(FOR KEY SEE REVERSE)

50X1-HUM

VEB Funkanlagenbau, Berlin-Koepenick, Wendenschlossstrasse 154, details of their available decimeter communications apparatus. 50X1-HUM

1. Type RVG 902E (RVG = Richtverbindungsgeraet) (directional communication equipment)

Use:	The apparatus is for establishing a decimeter wireless connection over quasi-optical ranges.
Antenna & cable:	Paraboloid. Grooved cable (Rillenkabel), Z = 70 ohms
Transmitter	
f range:	1200 to 1460 mcs (= 20.5 to 25 cms)
Modulation:	FM
Power:	≥ 8 W
Frequency deviation:	± 75 kcs
IF transmission range:	0.5 to 75 kcs
Receiver	
f range:	As above
Sensitivity:	≥ 70 kT
IF:	3 mcs
IF band-width:	≥ 0.4 mcs
Frequency range (Regelfrequenz) of adjustment of mechanical track alignment (Nachlauf):	c. 5 mcs in middle tuning range
Indicator setting (Pegelregelung):	Automatic
Distortion factor between 2 stations:	≤ 2.5%

STATE	X	ARMY	X	NAVY	X	AIR	X	FBI		AEC		ORR Ev	x	OSI Ev	x

(Note: Washington Distribution Indicated By "X"; Field Distribution By "#".)

Declassified in Part - Sanitized Copy Approved for Release 2013/06/26 : CIA-RDP80-00810A002800200003-9

Declassified in Part - Sanitized Copy Approved for Release 2013/06/26 : CIA-RDP80-00810A002800200003-9 HUM

Carrier frequency input & output:	Asymmetrical
Carrier input:	- 1.6N to + 3N
Carrier output:	- 1N
Matching:	600 ohms
Carrier f range:	6 to 60 kcs
Service channel frequency range:	0.5 to 2.2 kcs

Tubes:

3 x LD12	22 x RV12P2000
1 x EL12	6 x 6AC7
3 x EZ12	1 x STV280/80Z
2 x AG1006	2 x STV100/40Z
2 x LV3	

2. Type RVG 903B

Antenna:	Paraboloid
Antenna cable:	Rillenkabel, type RiCu TP 5.5/20
Resistance:	Z = 70 ohms
Attenuation:	≤ 10N/km
Transmitter f range:	1200 to 1470 mcs, divided into 10 channels with 30 mcs spacing (= 20.4 to 25 cms)
Power:	≥ 8 W
Modulation:	FM
Frequency deviation:	± 400 kcs
LF/carrier f. transmission range:	0.3 to 150 kcs
Receiver f range:	As above
Sensitivity:	≤ 70 kT
IF:	10.7 mcs
IF band-width:	1.4 mcs
Frequency indication (Pegelfrequenz):	140 kcs
Range of control of mechanical tracking alignment (Nachlauf):	± 3 mcs in middle tuning range
LF/carrier f. band:	0.3 to 150 kcs
Distortion factor between 2 stations:	≤ 2%
Carrier frequency input & output:	Earth-free (sic)
Matching:	600 or 150 ohms, selective.
	-1N to + 3N power level (Leistungspegel).
	c. 285mV to 15.6 V at 600 ohms
	c. 143mV to 7.8 V at 150 ohms
Output level:	0.25N power level (Leistungspegel).
	c.1 V at 600 ohms & c.0.5 V at 150 ohms
Service channel:	0.33 to 2.4 kcs = f range and 1667 cps = calling frequency
Current supply:	AC 50 cps. 110/127/220/240 V
Rate of power input:	c. 0.8 kVA and c.1.4 kVA with voltage regulator

Tubes:

4 x LD12	1 x LD11	26 x 6AC7
4 x 6AG7	2 x LV3	3 x 6H6
3 x 6SK7	2 x STV150/40Z	
1 x STV280/40Z	1 x STV280/80Z	
1 x STV100/40Z	1 x OSW2113	

Declassified in Part - Sanitized Copy Approved for Release 2013/06/26 : CIA-RDP80-00810A002800200003-9

Declassified in Part - Sanitized Copy Approved for Release 2013/06/26 : CIA-RDP80-00810A002800200003-9

3. Type RVG 905A

Antenna:	Paraboloid
Antenna cable:	Rillenkabel from Kabelwerk Oberspree (KWO) type RiCu TP 5.5/20
Attenuation:	$\leq$ 10N/km
Inner lead:	5.5 ϕ
Outer lead:	20 mm ϕ
Wave resistance:	Z = 70 ohms
Ripple at cable input with antenna connected	$m = \frac{U_{max}}{U_{min}} \leq 2$

Transmitter

f range:	1075 to 1145 mcs (= 26 to 28 cms), divided into 6 channels with 14 mcs spacing
Switching:	Concentric line resonator transmitter with grid base connection (Topfkreissender mit Gitterbasisschaltung)
Power:	$\geq$ 2 W
Modulation:	FM
Frequency deviation:	$\pm$ 50 kcs
LF transmission range:	30 cps to 15 kcs $\pm$ 1 db
Input resistance:	600 ohms
Input level:	ONp (775 mV)

Receiver

f range:	As above
Switching:	Heterodyne reception
Oscillator:	Concentric line resonator transmitter with grid base connection (Topfkreissender in Gitterbasisschaltung)
Mixing:	Equal push-pull arrangement
IF:	3 mcs
IF band-width:	$\pm$ 150 kcs
Demodulation:	Radio detector
LF transmission range:	30 cps to 15 kcs $\pm \leq$ 1 db
Output resistance:	600 ohms
Output level:	ONp (775mV)
Distortion factor between 2 stations:	$\leq$ 1.5%
Tracking alignment (Nachlauf):	Automatic (motor)
Tracking alignment (Nachlauf) f range:	$\pm$ 2 mcs
Beginning of track alignment (Nachlauf) on IF:	3 mcs $\pm$ 50 kcs
Interference spacing between 2 stations:	$\geq$ 5N

Tubes

a. Receiver	b. Transmitter
1 x LD11	1 x LD11
10 x 6AC7	1 x 6AC7
1 x 6H6	1 x 6V6
1 x STV280/40Z	1 x 280/80Z
1 x STV100/40Z	

4. Type RVG 906A

Antenna:	Paraboloid, half value width $\leq \pm$ 9°
Antenna cable:	Rillenkabel, Z = 70 ohms
Attenuation:	$\leq$ 10N/km

Declassified in Part - Sanitized Copy Approved for Release 2013/06/26 : CIA-RDP80-00810A002800200003-9

Declassified in Part - Sanitized Copy Approved for Release 2013/06/26 : CIA-RDP80-00810A002800200003-9

Transmitter	
f range:	1070 to 1150 mcs (= 26 to 28 cms)
Modulation:	FM
Frequency deviation:	± 50 kcs
LF transmission range:	500 to 2200 cps
Calling frequency:	Between 800 and 1000 cps
Receiver	
f range:	As above
IF:	3 mcs
If band-width:	± 150 kcs
LF transmission range:	500 to 2200 cps
Distortion factor between 2 stations:	≤ 10%
Oscillator alignment (Nachlauf):	Automatic (motor)
Range of control of alignment (Nachlauf):	≥ ± 2 mcs
Current supply:	50 cps. 110/127/220/240 V AC
Emergency current supply:	12 V storage battery with 12V/220/V transformer. Consumption c.150VA
Tubes:	2 x LD11 (OSW2166) 10 x 6AC7 (OSW2190) 1 x 6H6 (OSW3109) 1 x STV100/40Z (OSW3811)

5. Type DT 921 (DT = Dezimeter-Telefon)

Transmitter:	
f range:	A: 482 to 506 mcs (59.3 to 62.3 cm) B: 536 to 560 mcs (53.5 to 56 cms)
Receiver	
f range:	A; As for B above B: As for A above
Transmitter power:	≥ 0.6 W
Frequency constancy of transmitter against mains variations of ± 10%:	30 to 2400 cps
Band-width of modulated amplifier and of LF receiver amplifier:	300 to 2400 cps
Current supply:	AC or 12 V battery
Dimensions & weight	350 x 370 x 210 mm. c. 20 kgs.

6. Type TF 941B and type TF 941C (TF = Traegerfernsprechgeraet) (carrier telephony equipment)

Number of speech channels:	12
Transmission band:	12 to 60 kcs
LF f band:	300 to 3400 cps
Zero frequency spacing:	4 kcs
Carrier frequencies	
Channel use:	12,16,20,24 kcs
Group use:	48,60,72 kcs
Method of transmission:	Single side band transmission with suppressed carrier
Method of indicator setting (Pegelregelung):	Automatic adjustment with the help of a pilot frequency (Selbsttaetige Regelung mit Hilfe einer Steuerfrequenz)

Declassified in Part - Sanitized Copy Approved for Release 2013/06/26 : CIA-RDP80-00810A002800200003-9

Declassified in Part - Sanitized Copy Approved for Release 2013/06/26 : CIA-RDP80-00810A002800200003-9

Control frequency: 12 kcs

Transmission level values (Pegelwerte):

LF levels (NF Pegel):

Two-wire input level (Zweidrahteingangspegel):	- 0.4N
Two-wire output level (Zweidrahtausgangspegel):	- 0.4N
Four-wire input level (Vierdrahteingangspegel):	- 2.0N
Four-wire output level (Vierdrahtausgangspegel):	+ 1.0N
Input & output resistance:	600 ohms

HF levels (Pegel):

Output level, each channel with cable operation (Ausgangspegel, je Kanal bei Kabelbetrieb):	+ 0.5N
As above, with wireless operation (Do., bei Funkbetrieb):	- 1.0N
Input level, each channel with cable operation (Eingangspegel, je Kanal bei Kabelbetrieb):	$\geq$ - 6.5N
As above, with wireless operation (Do., bei Funkbetrieb):	- 1 N
Input & output resistance:	150 ohms, with a reflection factor of $\leq$ 15%

Current supply: AC 50 cps

Tubes: Channel, group and end amplifiers, OSW 2190 and 2192
Carrier supply, OSW 2190
Calling transposer, OSW 2192
Audio & measuring amplifier, 6807

Dimensions & weight

TF 941B: 3 frames, each 2185 x 780 x 400 mm. Each 330 kgs, total 1000 kgs

TF 941C: 5 frames, each 1775 x 780 x 400 mm. Each 230 kgs, total 1150 kgs

Use:

Telephony: For carrier frequency use, either in cable traffic on 4-wire lines or in radio use as auxiliary to link apparatus (e.g. RVG902 or 903).

Telegraphy: Coverage of the carrier frequency channels with W/T over AC telegraphic equipment (e.g. FT-3B) (Belegung der TF-Kanaele mit WT ueber Wechselstrom Telegrafiegerate (e.g. FT 3B).)

Declassified in Part - Sanitized Copy Approved for Release 2013/06/26 : CIA-RDP80-00810A002800200003-9